REMARKS

In the office action mailed March 31, 2003, claims 1-3, 5-20, and 22-28 were rejected. Specifically, the following actions were taken by the Examiner:

1) claims 1-3, 5-9, 11-20, and 22-28 were rejected under 35 U.S.C. 103(a) as being obvious over WO Patent Application 98/48648 (hereinafter "Henry")

2) claims 1, 3, and 9 were rejected under 35 U.S.C. 102(b) as being anticipated by U.S. Patent No. 5, 516, 925 (hereinafter "Pedersen"); and

3) claims 3, 7, 8, 10, 14, and 16 were rejected under 35 U.S.C. 103(a) as being obvious over Pedersen.

I. REJECTIONS UNDER 35 U.S.C. 102(b)

A. *Pedersen*

Claims 1, 3, and 9 were rejected under 35 U.S.C. 102(b) as being anticipated by Pedersen. The Examiner has cited column 11, Example 8, in making this rejection. However, as discussed in the previous response, the method described in claim 1 is for enhancing solubility of an amino acid chelate by an admixing step, not a method of reacting an organic acid with an amino acid chelate. The current amendment to claim 1 is intended to clarify this difference with the phrase "to form a mixture of iron amino acid chelate or iron proteinate and organic acid." The composition of the amino acid chelate molecule does not substantially change upon introducing the organic acid solubilizing agent. The organic acid component acts, at least in part, as a pH control mechanism to improve solubility. For example, at the ratios claimed, an iron (+2) amino acid chelate having a 2:1 ligand to metal molar ratio would not allow

an organic acid to react either covalently or ionically with the chelate since four coordination sites are occupied. Similarly, an iron amino acid chelate having a ligand to metal molar ratio of 1:1 would require that the organic acid displace a chloride, sulfate, or similar group in order to react with the iron chelate. Conversely, Example 8 of Pedersen reacts malic acid with an iron amino acid chelate/complex to form a new product. This is clear from the identification of the product formed, i.e. "iron(III) lysyl glycerophosphate/malate." A malate indicates that a complex having a covalent bond between the iron and the malic acid has been formed. The fact that the example mentions adding malic acid does not mean that it does not react, particularly in light of the fact that the example refers to the product as a malate. Referring to the Applicant's own disclosure, "chelation can be confirmed and differentiated from mixtures of components by infrared spectra..." (underlining added, page 3, lines 13-14). Therefore, Applicant has specifically stated that there is a measurable difference between mixtures and chelated or complexed components. Therefore, Pederson does not disclose a "mixture of iron amino acid chelate or iron proteinate and organic acid" but instead a complex of iron amino acid chelate with malic acid. As Pedersen does not read on this aspect of claim 1, reconsideration is respectfully requested.

II. REJECTIONS UNDER 35 U.S.C. 103(a)

A. Henry

Claims 1-3, 5-9, 11-20, and 22-28 were rejected under 35 U.S.C. 103(a) as being obvious over Henry. Claims 1 and 17 were amended to clarify the state of the organic acid as in mixture with the iron amino acid chelate or iron proteinate as opposed to a reacted product of the two components. Thus, a response to the obviousness rejections will be discussed with respect to amended claims 1 and 17. If

newly amended claims 1 and 17 are found to be allowable, all claims that depend therefrom will also be in allowable condition.

The Examiner has asserted that a solubilizing agent to iron content weight ratio of 5:1 to 1:1 of claims 1 and 17 are obvious in view of Henry. As noted by the Examiner, Henry is not entirely clear as to what ranges of complexing agent to iron source ratios are actually disclosed therein. Further, Henry inconsistently uses the term "iron source" at page 12, line 29 and merely "iron" in claims 24-27. A complexing agent to iron source ratio of 1:1 as disclosed in Henry would not necessarily be the same as an organic acid to iron content ratio of 1:1 of the present claims. Regardless of which phrase is correct, Henry does not disclose or suggest the claimed limitation of forming a "mixture of iron amino acid chelate or iron proteinate and organic acid". Specifically, Henry discloses using a complexing agent which can include various organic acids. See page 12, lines 8-15. As is well known in the art, complexing essentially involves formation of a compound from a metal ion and a ligand or complexing agent. Just as with the Pederson reference discussed above, Henry does not disclose or suggest mixtures of iron amino acid chelate or iron proteinate and organic acid as used by the Applicant.

B. Pedersen

Claims 3, 7, 8, 10, 14, and 16 were rejected under 35 U.S.C. 103(a) as being obvious over Pedersen. Again, the Examiner points to column 11, Example 8, of Pedersen in making this rejection. Example 8 describes an iron(III) lysyl glycerophosphate stabilized with malic acid. Specifically, malic acid is added to a filtrate that includes iron (III) that is chelated to lysine and complexed with a glycerophosphate. Upon addition of the malic acid, the malic acid complexes with the iron (III). Example 8 itself states that an "iron (III) lysyl glycerophosphate/

malate" is formed. The rejected claims depend on currently amended claim 1 which now clarifies that a "mixture of iron amino acid chelate or iron proteinate and organic acid" is formed. Upon admixing an organic acid, such as malic acid, with an iron amino acid chelate at the ratios claimed, reaction between the iron and the organic acid will substantially not occur. However, the presence of the organic acid at the claimed ratios improves the solubility of the iron amino acid composition. This is a significant distinction between the method step of admixing of the present claims, and the step of reacting as exemplified in Pedersen. Therefore, reconsideration of this rejection is respectfully requested.

Applicants submit that each and every amendment herein, and throughout the prosecution of the present application is fully supported by the specification as originally filed, and that no new matter has been added.

In view of the foregoing, Applicants believe that claims 1-3, 5-20, and 22-28 present allowable subject matter, and allowance is respectfully requested. If any impediment to the allowance of these claims remains after consideration of the above remarks, and such impediment could be resolved during a telephone interview, the Examiner is invited to telephone Gary Oakeson, or the undersigned attorney, at (801) 566-6633, so that such issues may be resolved as expeditiously as possible.

Please charge any additional fees, except for Issue Fee, or credit any overpayment to Deposit Account No. 20-0100.

Dated this 20th day of May, 2003.

Respectfully submitted,

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